

PROGRAMMABLE STREAMING DATA PROCESSOR FOR DATABASE  
APPLIANCE HAVING MULTIPLE PROCESSING UNIT GROUPS

ABSTRACT OF THE DISCLOSURE

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A data processing system having two or more groups of data processors that have attributes that are optimized for their assigned functions. A first group consists of one or more host computers responsible for interfacing with applications and/or end users to obtain queries and for planning query execution. A second processor group  
10 consists of many streaming record-oriented processors called Job Processing Units (JPUs), preferably arranged as an MPP structure. The JPUs typically carry out the bulk of the data processing required to implement the logic of a query. Each of the JPUs typically include a general purpose microcomputer, local memory, one or more mass storage devices, and one or more network connections. Each JPU also has a special  
15 purpose programmable processor, referred to herein as a Programmable Streaming Data Processor (PSDP). The PSDP serves as an interface between the CPU of a JPU and the mass storage device, to offload functions from the CPU of the JPU.